

Evaluating the Mississippi Healthy Students Act



Year One Report



2007 School Health Policy Development

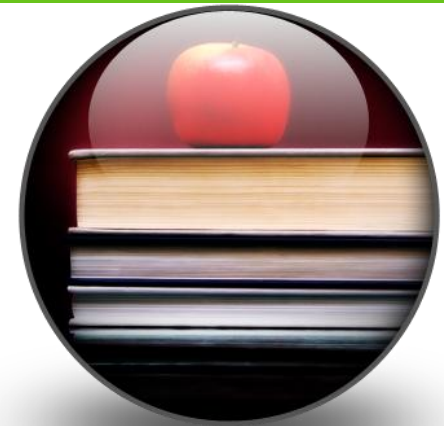


- MS Healthy Students Act
 - Mandates 150 minutes per week of physical education, K-8
 - Mandates 45 minutes per week of health education, K-8
 - Requires ½ Carnegie Unit of physical education and ½ for health education for graduation, 9-12
 - Recommended student teacher ratio
 - Requires fitness testing in grade 5 and the year of high school credit is received for graduation
 - Appropriates funds for a physical education coordinator to be housed at MDE
 - Required Nutrition Standards





Mississippi Public School Accountability Standards



- 37.2 Each school has on file a school wellness policy developed by a local school health council that addresses the eight components of a coordinated approach to school health and that has been approved by the local school board.





Mississippi's Project

- Funded by the Robert Wood Johnson Foundation and the Bower Foundation
- Multi-year project: 2008-2013
- Directed by the Center for Mississippi Health Policy



Principal Investigators

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 - Jerome Kolbo, PhD, ACSW
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- MS State University
 - Linda Southward, PhD, ACSW
- University of Mississippi
 - Teresa Carithers, PhD, RD
 - Laurel Lambert, PhD, RD, LD



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The University of Mississippi



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National Program

- Robert Wood Johnson Foundation
- Evaluations of Statewide Childhood Obesity Prevention Policies
 - Arkansas
 - West Virginia
 - Delaware
 - Texas
 - New York
 - Mississippi





Component Studies



- School Wellness Policy Principal Survey
- State and Local Policymaker Survey
 - School Superintendents
 - School Board Members
 - District Health Officers
 - Education & Health Board Members
 - Key Legislators
- Parent/Adolescent Survey
- On Site Nutrition Environment Assessment
- Child and Youth Prevalence of Obesity Survey
- Committed to Move Evaluation





Year 1 Report



- Primarily baseline data in first year
- Report provides overview of key findings and policy implications
- Detailed reports on individual studies available on the C4MHP web site





Summary of Key Findings

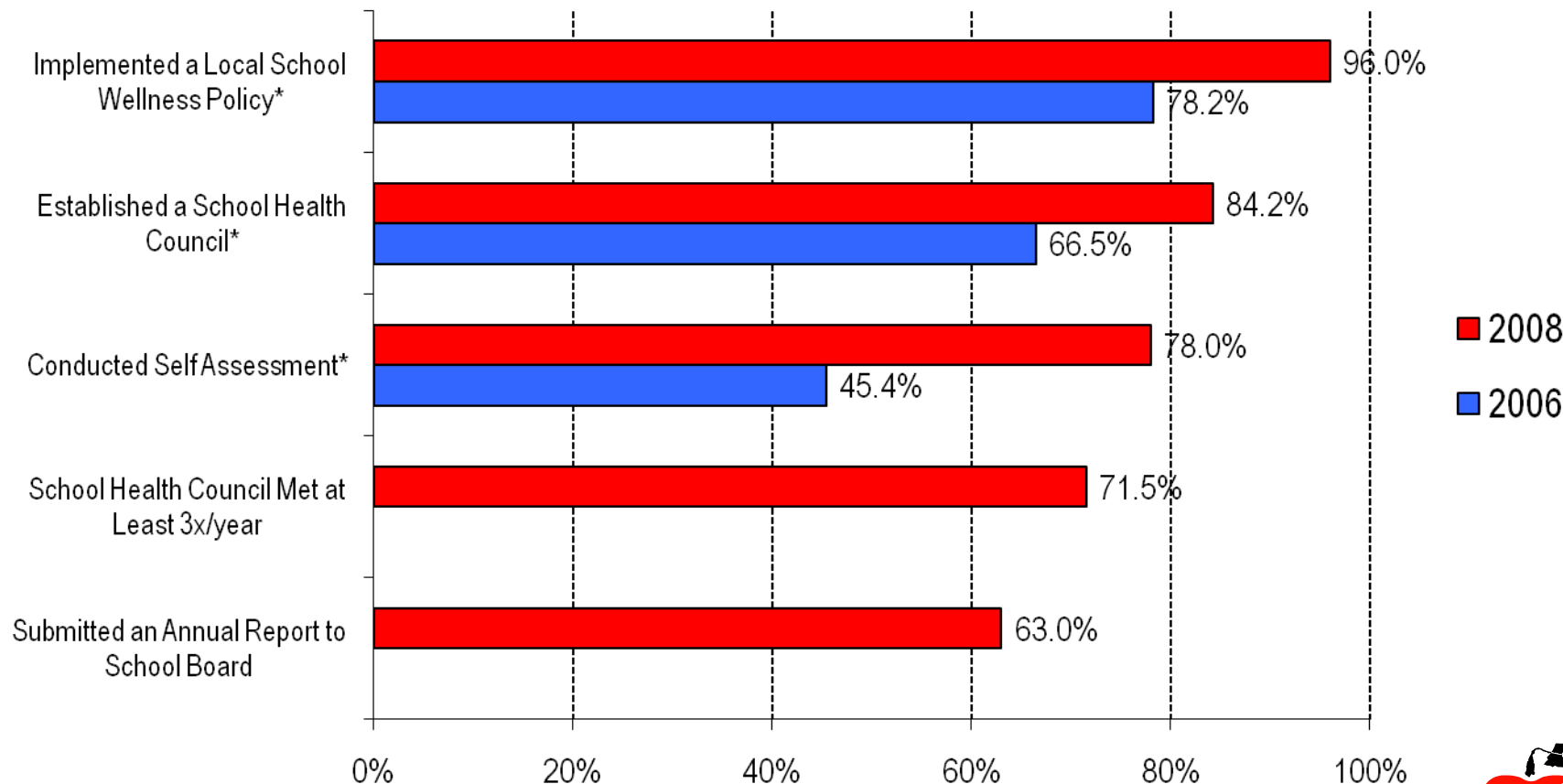


- For all groups surveyed, individuals consider childhood obesity a serious problem worthy of government intervention.
- Considerable progress has been made in implementing the requirements of the Act, but some areas need improvement.
- School board members demonstrated less awareness of policy actions taken.
- Parents are aware that changes are being made in nutrition and physical activity, but not specific policies.
- Obesity rates appear to be leveling off, but racial disparities are increasing.





School Wellness Policy Implementation Reported by Principals



*Indicates difference is statistically significant

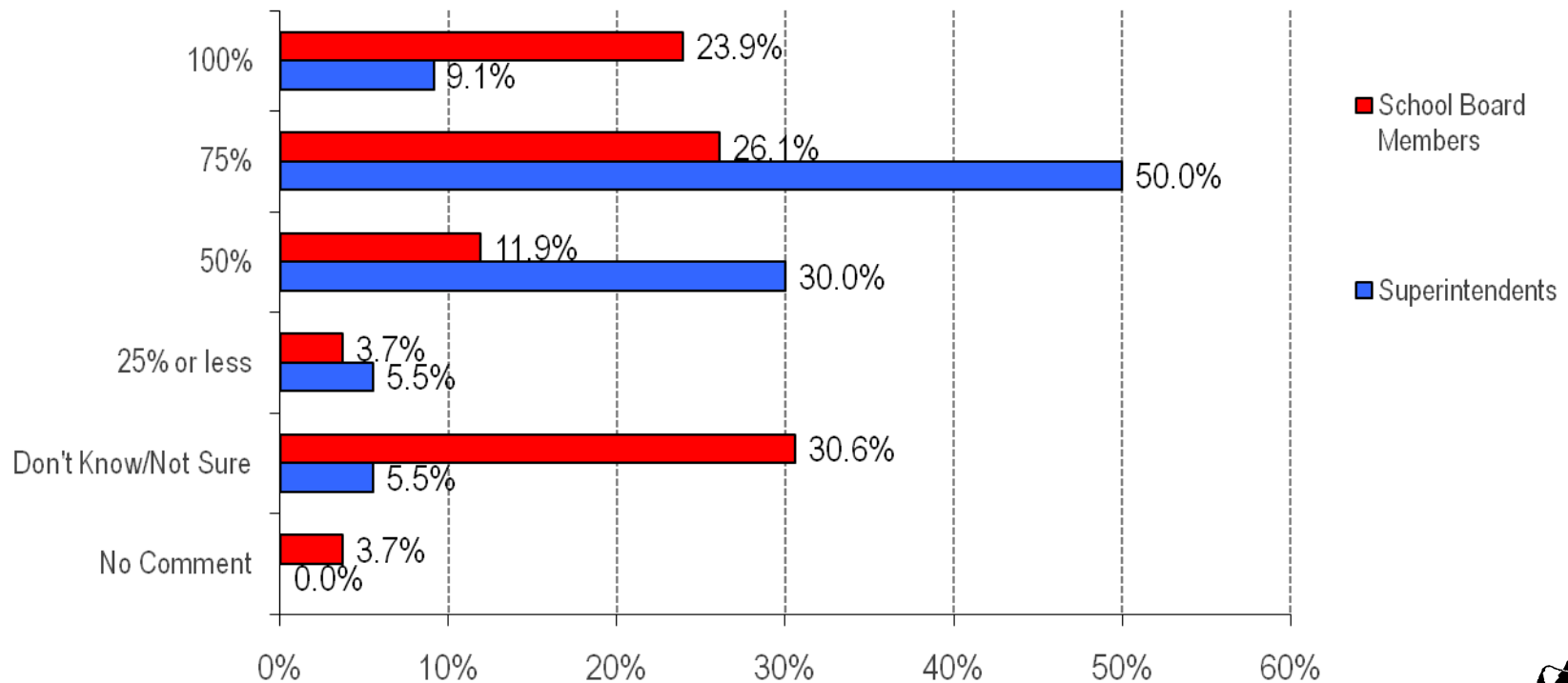
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Perceptions of Superintendents & School Board Members

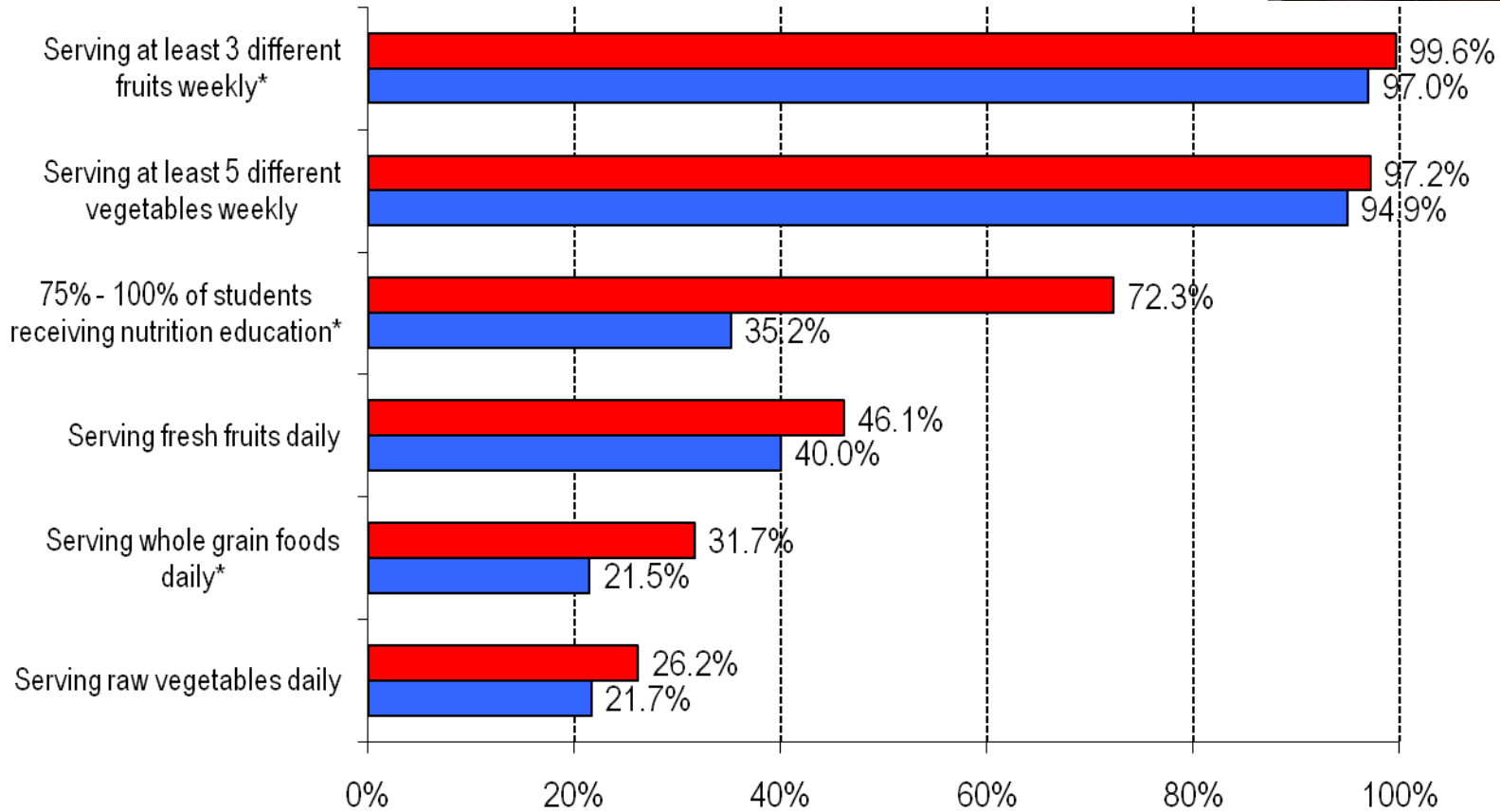
Please rate your school district's progress in implementing the Healthy Students Act of 2007



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Implementation of Nutrition Standards Reported by Principals



*Indicates difference is statistically significant

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Nutrition Standards with Highest Compliance

Served 100% juice during lunch	99%
Showed a decrease or no change in fried food items served	99%
Had a valid operation permit	99%
Served milk with the allowed fat content	98%
Gave students adequate time to eat	96%
Complied with existing NSLP/SBP meal pattern	96%
Developed a HACCP (food safety) plan	95%
Served a minimum of 3 different fruits weekly	95%
Had a wellness committee	94%
Served no fried extra food items	92%





Nutrition Standards with Lowest Compliance

Limited the number of extra sale items purchased with a reimbursable meal	48.0%
Served fresh vegetables at all observed lunches	47.0%
Promoted healthy eating and/or lifestyles in the past 12 months	43.0%
Had a plan to promote SBP and NSLP	36.0%
Served one whole grain product at all lunches	35.0%
Had at least one working Combi-Oven	30.0%
Used partnerships to promote family nutrition	30.0%
Had a wellness committee that met standard requirements	29.0%
Had nutrient analyses for trans fats in breakfast and lunch	29.0%
Had at least one "0" trans fat product in both lunch and breakfast menus	27.0%
Eliminated fryers in their operation	19.0%
Served recommended dark green and/or orange vegetables or fruits 3x week	15.0%



Nutrition Outcomes: Overall Positive



- Schools are at various levels of implementation
- Offering fresh fruits and vegetables
- Offering a wide variety of fruits and vegetables
- High compliance with vending regulations
- High compliance with competitive food policies
- Decreasing or have eliminated fried foods
- Child Nutrition staff have been very accommodating



Nutrition Outcomes: Guidance Needed



- Are not aware of trans-fat policies
- Are not assertive in marketing healthy foods
- Are not providing family education regarding healthy foods
- Do not have a business or marketing plan for increasing healthy foods
- Need assistance in purchasing/installing combi-ovens



Use of Food As a Reward



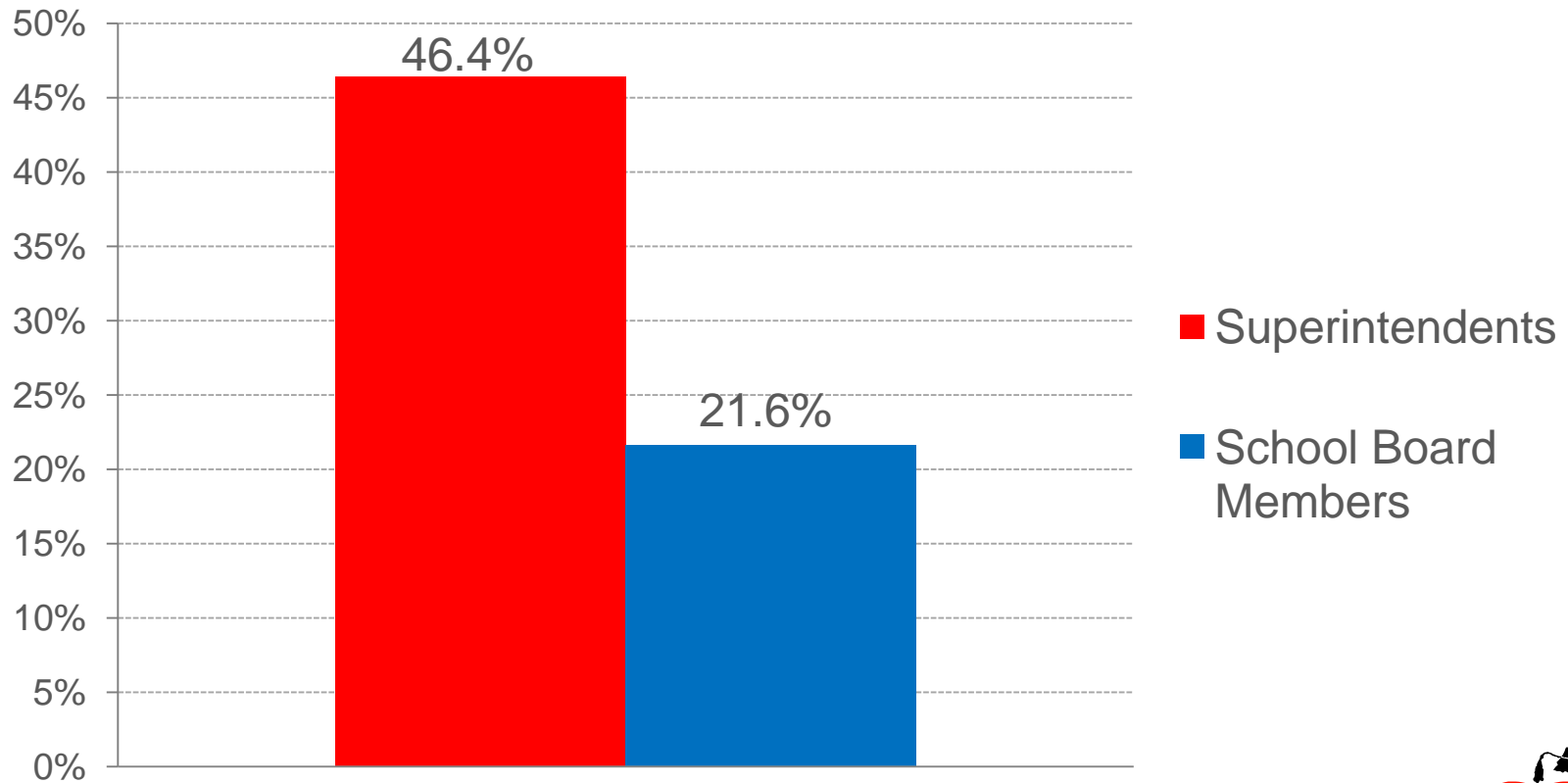
Has your school district adopted a policy stating that schools are prohibited from using food or food coupons as a reward for good behavior or good academic performance?

Response	School Board Members	Superintendents
Yes, we prohibit	21.2%	23.6%
No, but we recommend against it	16.9%	27.3%
We do not have a policy	35.0%	43.6%
Don't know/Not sure	21.2%	5.5%
No comment	3.8%	0.0%

Use of Food in Fundraising



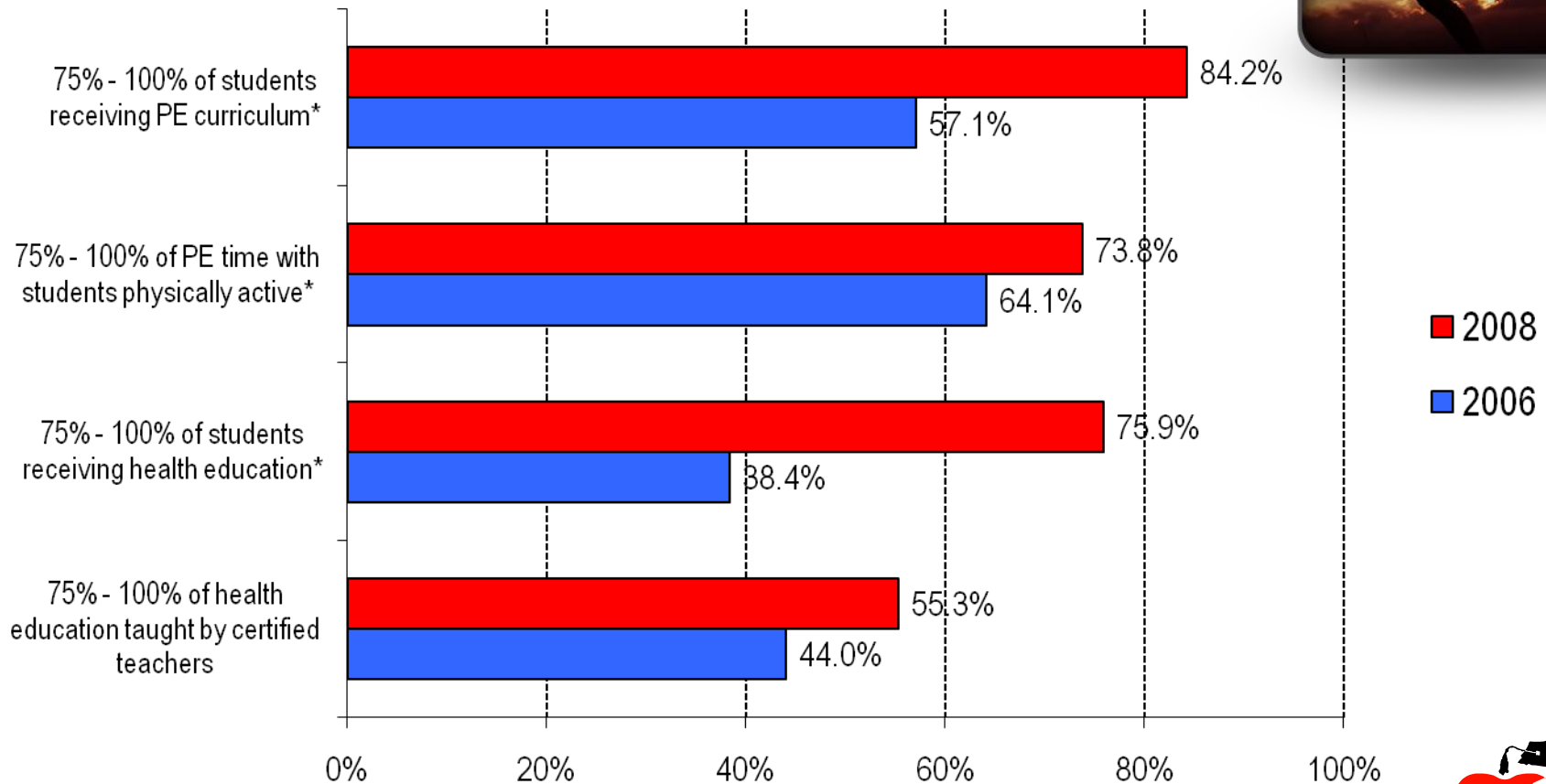
Does your school district have a fundraising policy that includes nutrition guidelines?



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PE & Health Education Reported by Principals



*Indicates difference is statistically significant

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Fitness Testing



Do schools in your district conduct fitness testing? Are you in favor of sending this information to children's parents?

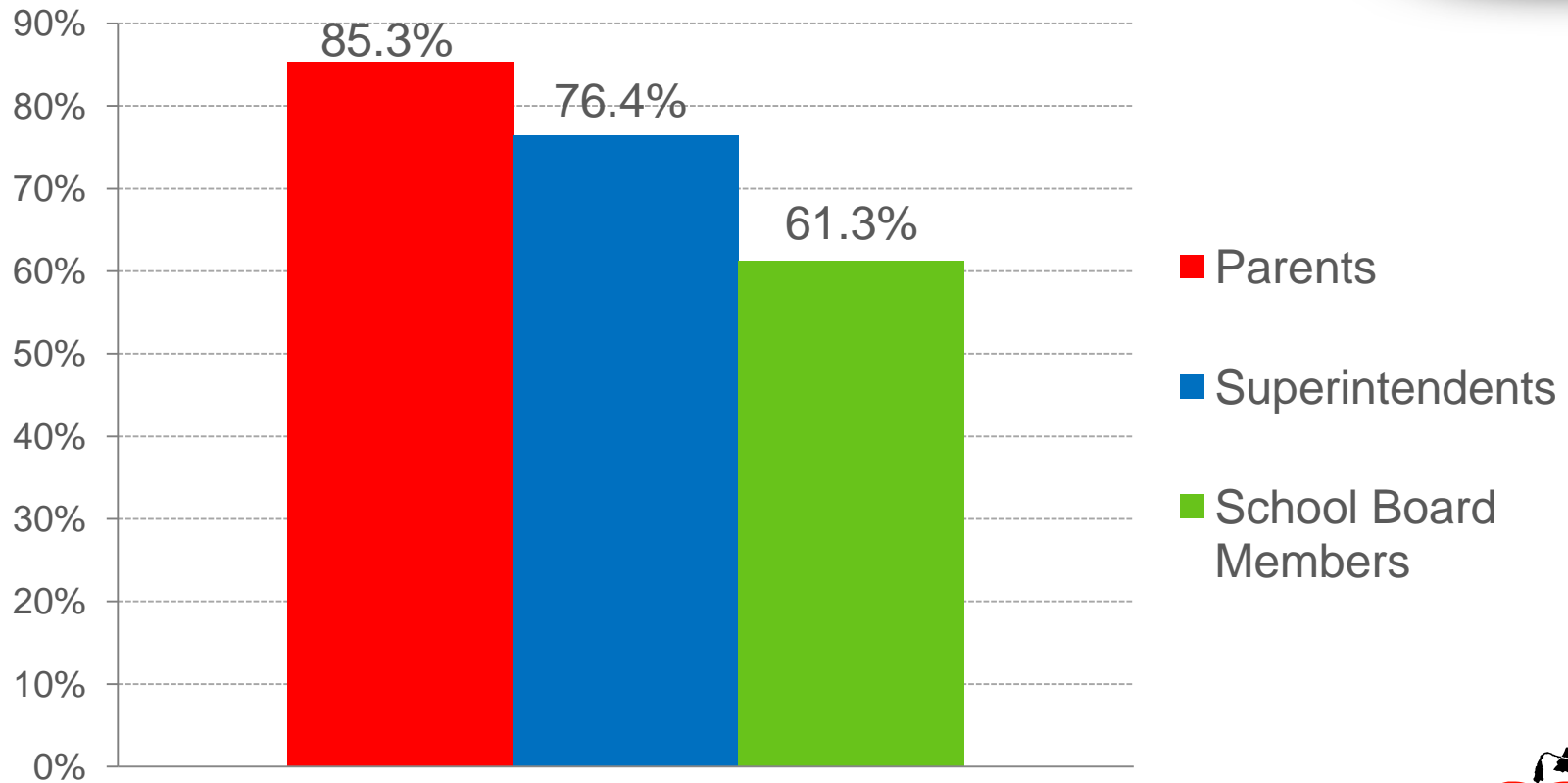
Response	School Board Members	Superintendents
Yes, we conduct fitness testing	35.0%	72.7%
Yes, fitness testing results should be sent to parents	71.3%	92.5%



BMI Measurements



In favor of schools collecting BMI measurements



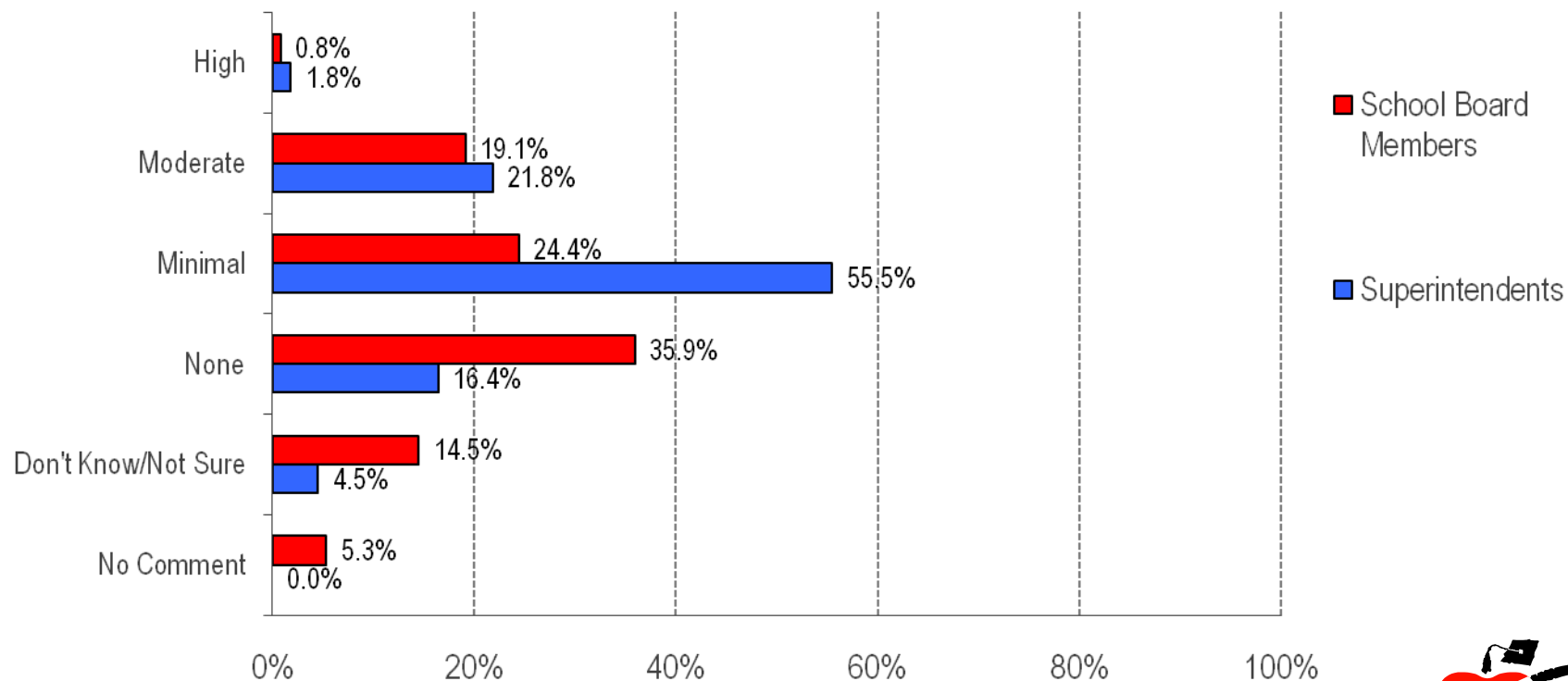
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Feedback from Parents

What level of feedback have you had from parents on implementing the Mississippi Healthy Students Act?



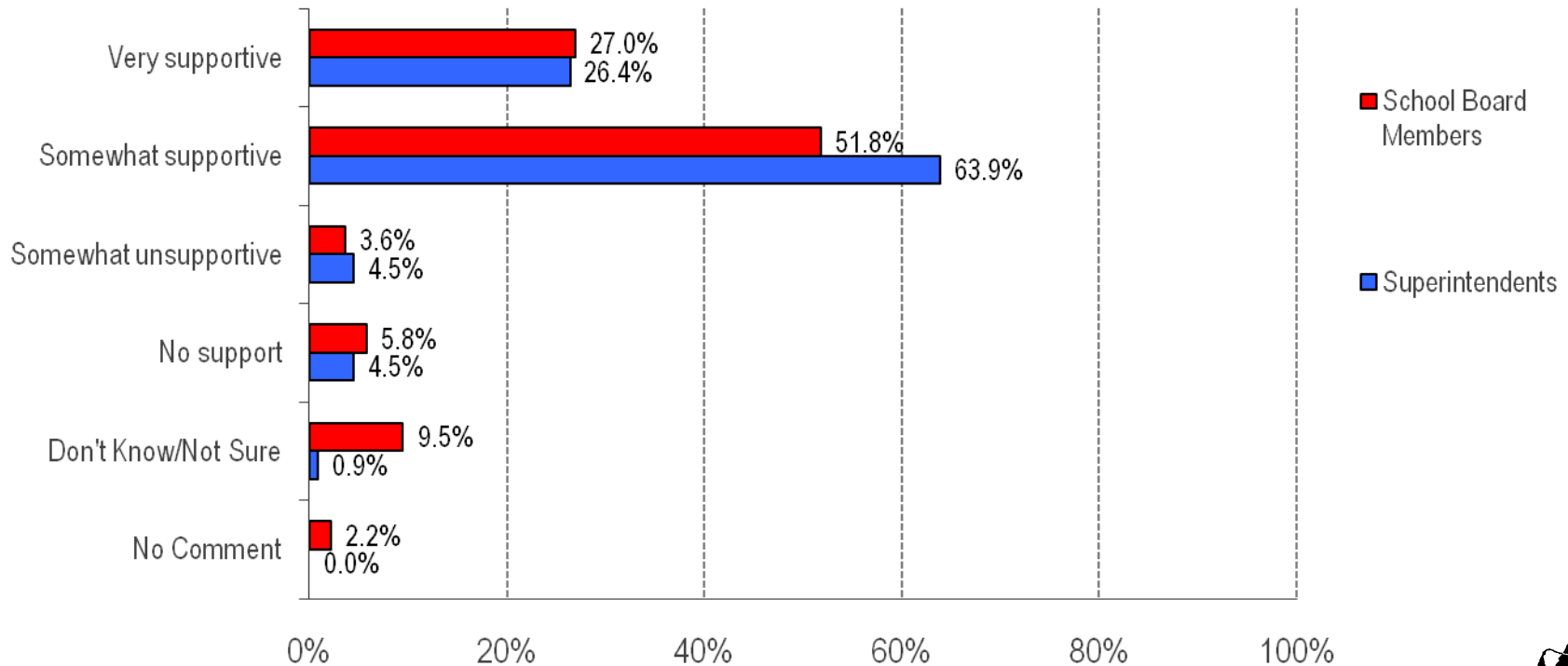
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Community Support

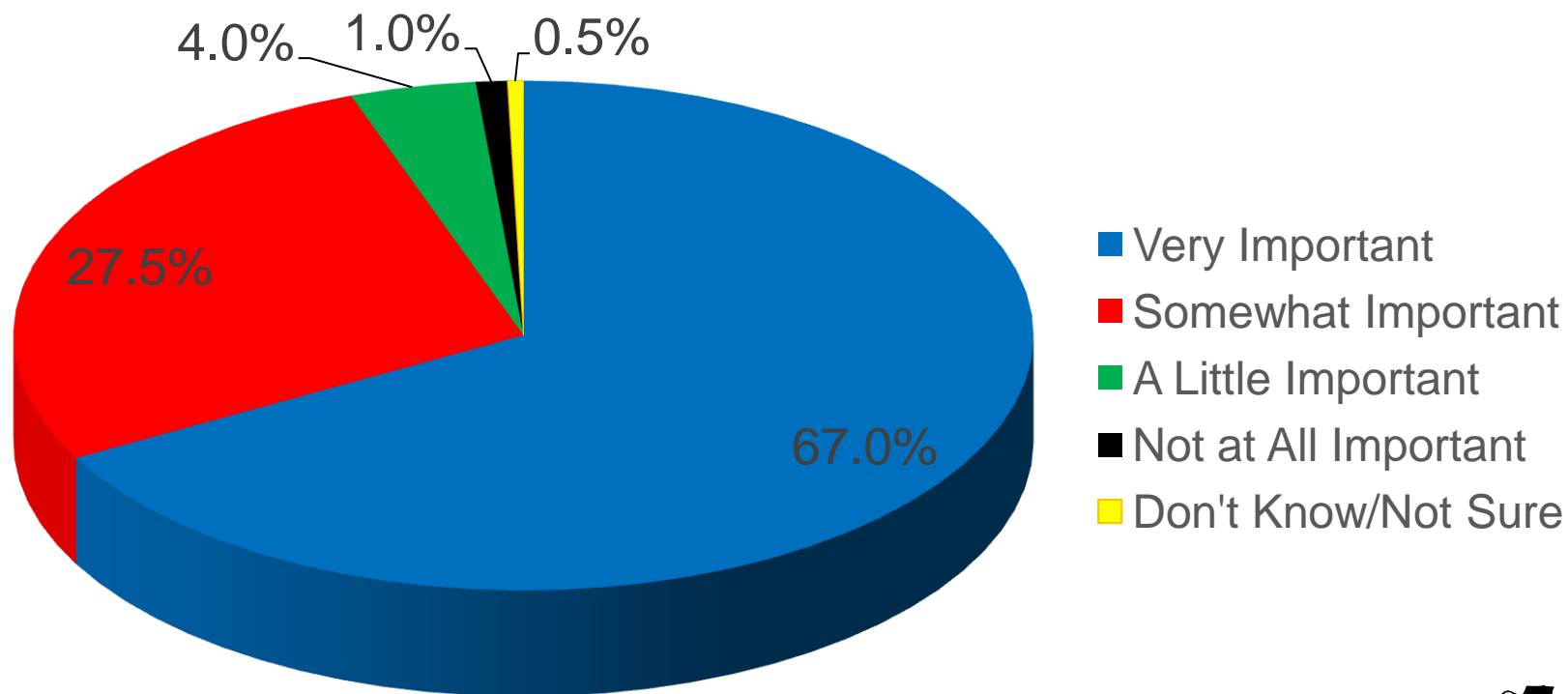
Describe the level of community support your school district receives on promoting physical education, nutrition, and health education





Key Findings from Parent Survey

How important would you say is the role of the school in trying to prevent childhood obesity?





Parent Awareness & Support

Question	% Answering “Yes”
Do you think schools in your community should require physical education for all students?	96.6%
State laws now require schools to offer only healthy foods to children and to increase physical education. Do you support this?	95.6%
Are you aware of any changes in vending machines school lunch choices, or physical exercise requirements at your child’s school?	44.0%
In the last year, has your child’s school adopted any policies to prevent childhood obesity?	40.0%
Does your child’s school have a health committee, council, or task force?	25.6%



Question

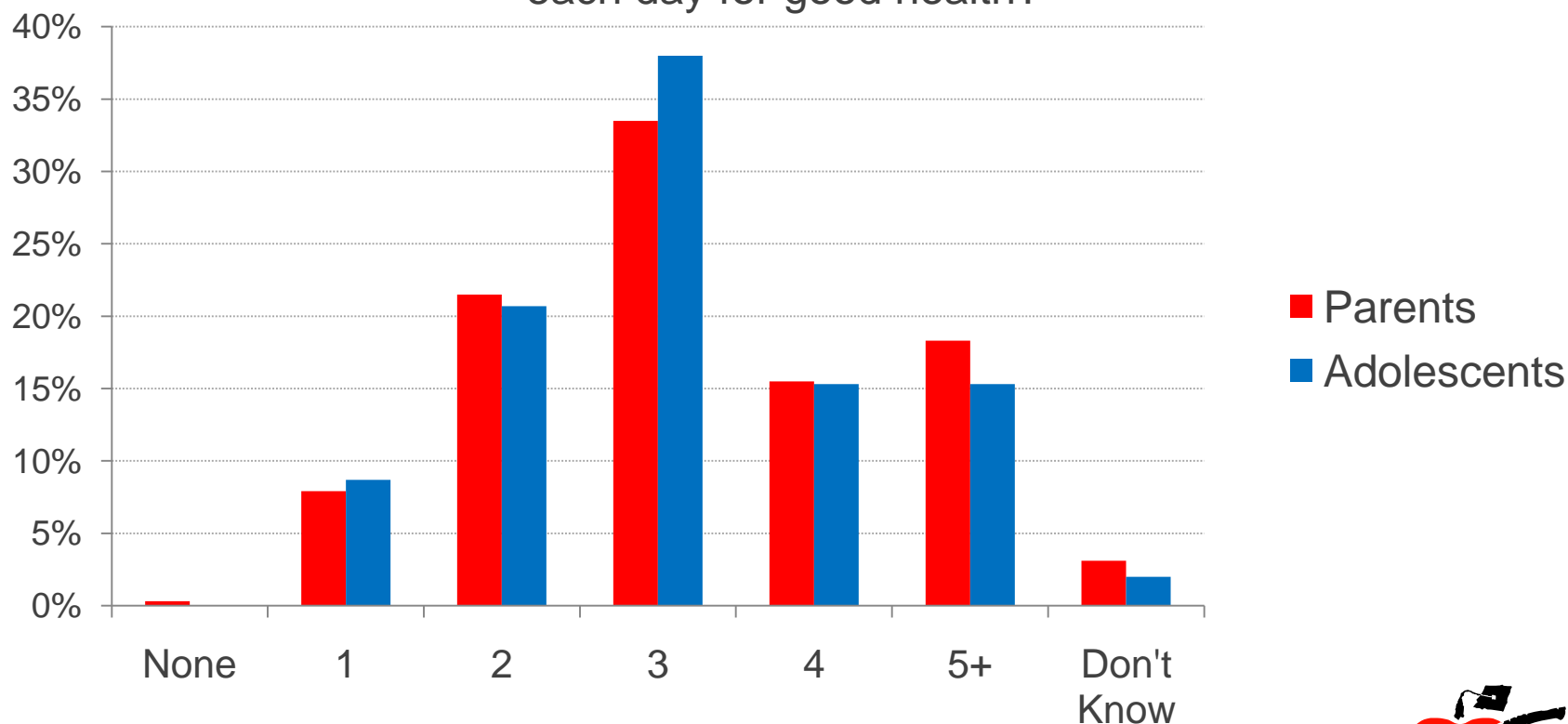


How many servings of fruits & vegetables should a person eat each day for good health?



Parent & Adolescent Knowledge

How many servings of fruits & vegetables should a person eat each day for good health?





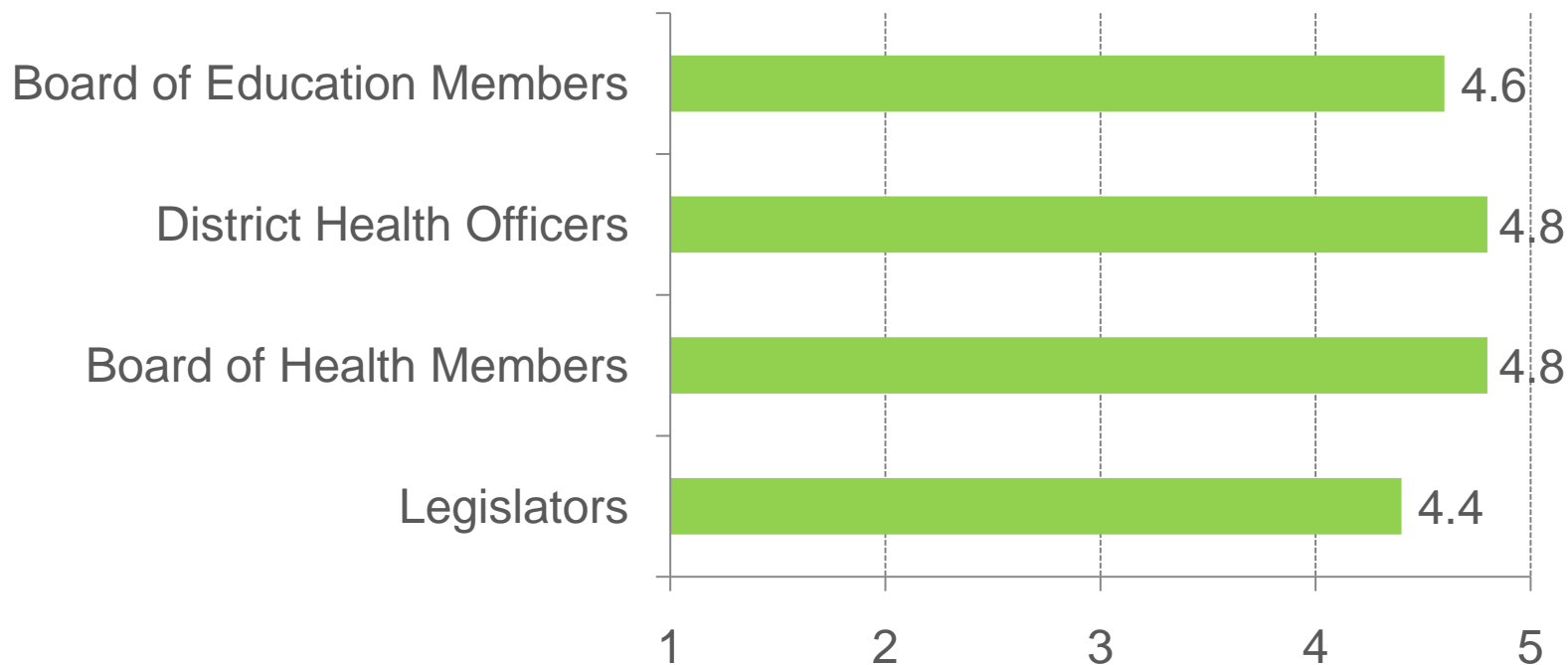
Parent Responses on Community Environment

Question	% Answering “Yes”
Are public school facilities available for individuals in the community to use for physical activity outside of school hours?	46.5%
Do you have a park nearby where your children can play?	63.4%



Perceptions of Policy-makers

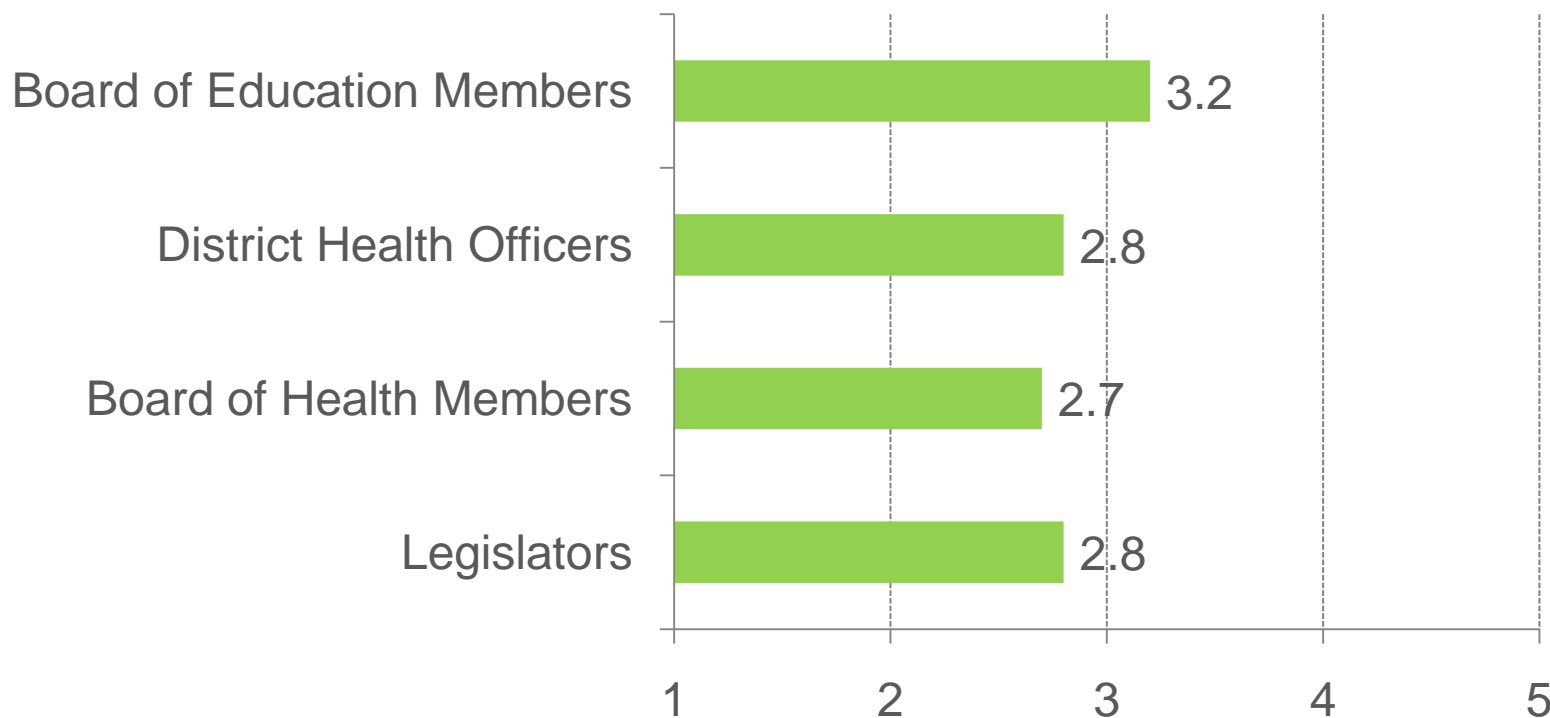
On a scale of 1-5, with 5 being the most important and 1 being the least important, how important do you think prevention of childhood obesity is?





Perceptions of Policy-makers

On a scale of 1-5, with 5 being very effective and 1 being very ineffective, how would you rank Mississippi's current policies on childhood obesity?



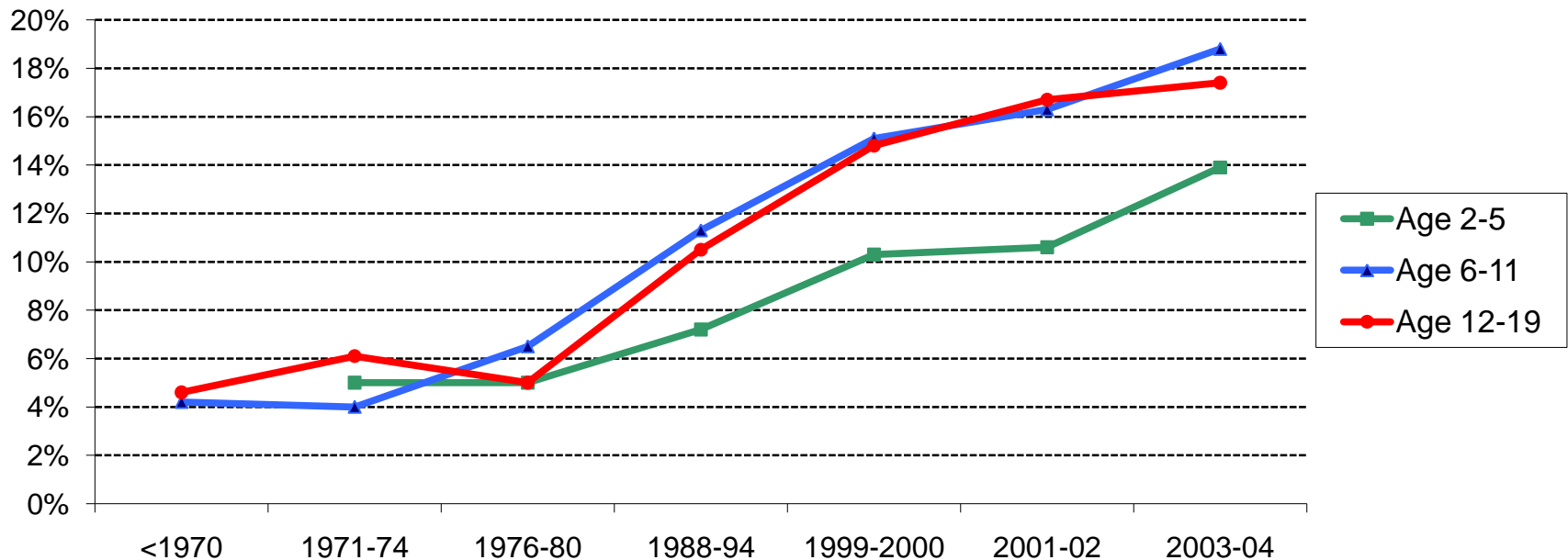
Note: Legislators were asked to rank where MS was on addressing childhood obesity policies with 5 being doing all it can and 1 being only having enacted minimal policies to address childhood obesity.

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National Trends in Childhood Obesity Rates

**Prevalence of Obesity among Children & Adolescents
1970-2004**



Source: Centers for Disease Control. National Center for Health Statistics. Prevalence of Overweight among Children and Adolescents: United States, 1966 - 2004.



2005 – 2009 Child and Youth Prevalence of Obesity Survey



Obesity Rates by Year

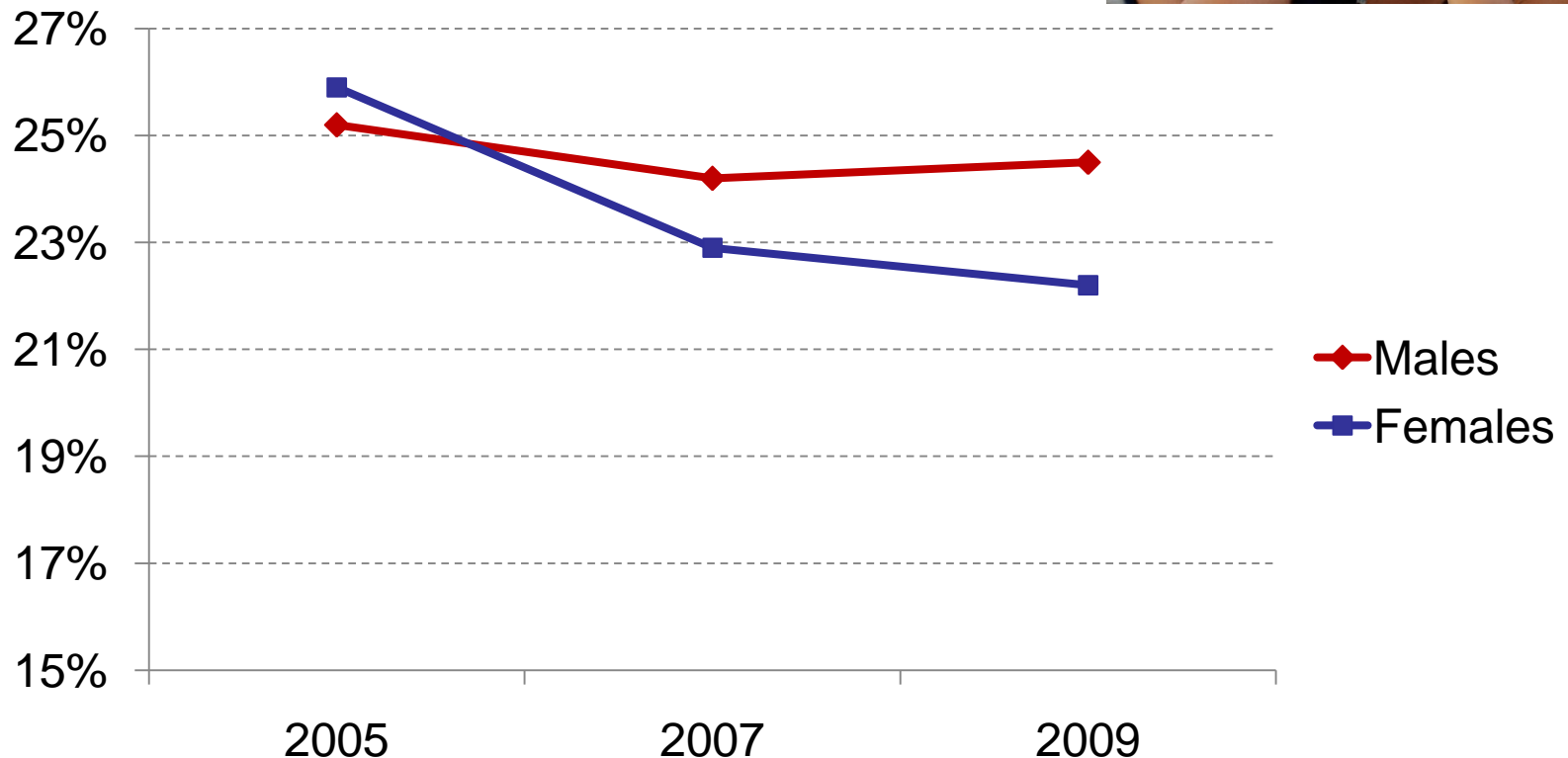


Source: Molaison EF, Kolbo JR, Zhang L, Harbaugh B, Armstrong MG, Rushing K, Blom LC, & Green A. (2010). Prevalence and Trends in Obesity among Mississippi Public School Students, 2005-2009. *Journal of the Mississippi Medical Association* 51(3): 67-72.

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2005 - 2009 CAYPOS Obesity Rates by Gender



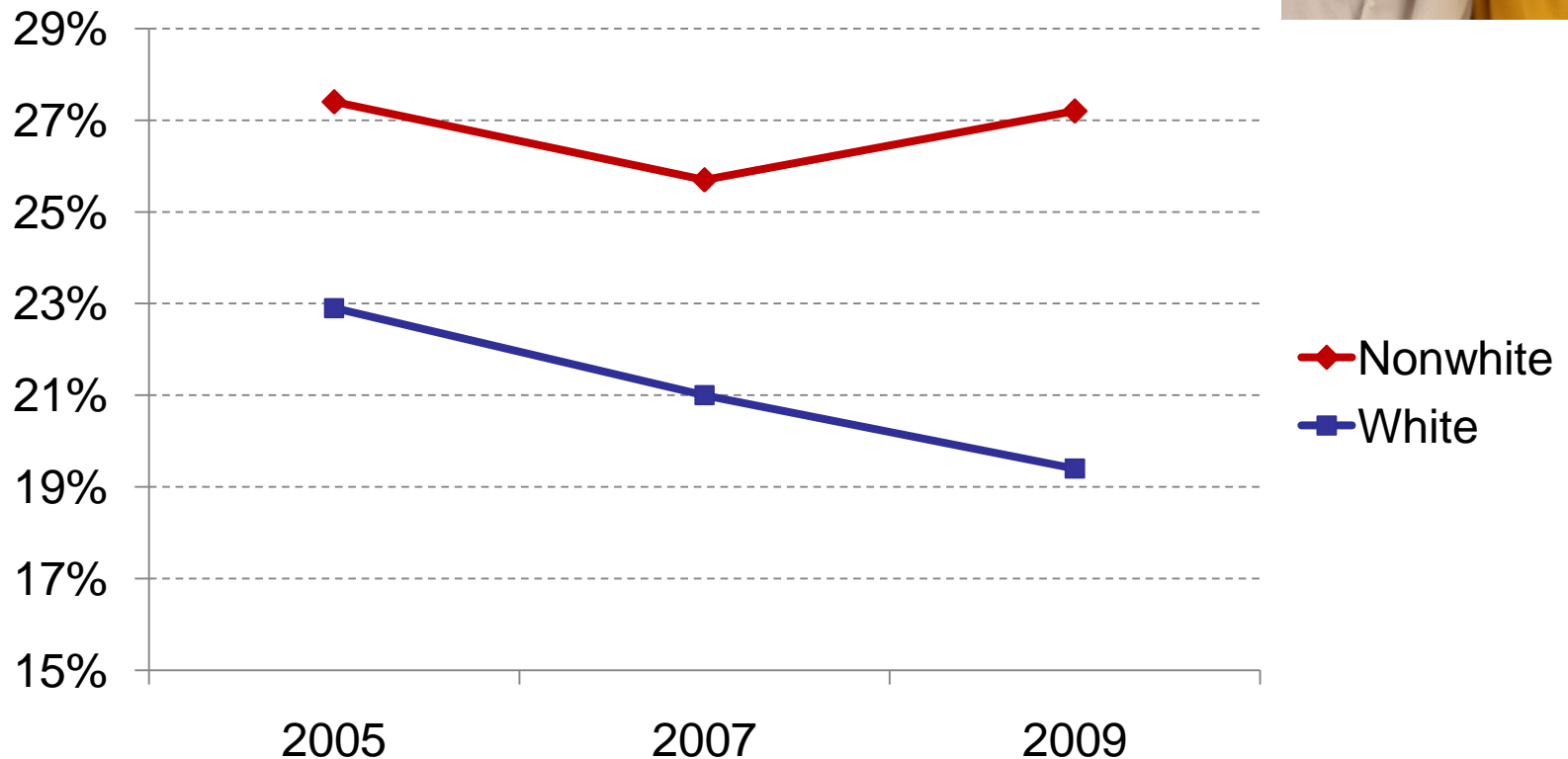
Source: Molaison EF, Kolbo JR, Zhang L, Harbaugh B, Armstrong MG, Rushing K, Blom LC, & Green A. (2010). Prevalence and Trends in Obesity among Mississippi Public School Students, 2005-2009. *Journal of the Mississippi Medical Association* 51(3): 67-72.

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2005 - 2009 CAYPOS Obesity Rates by Race

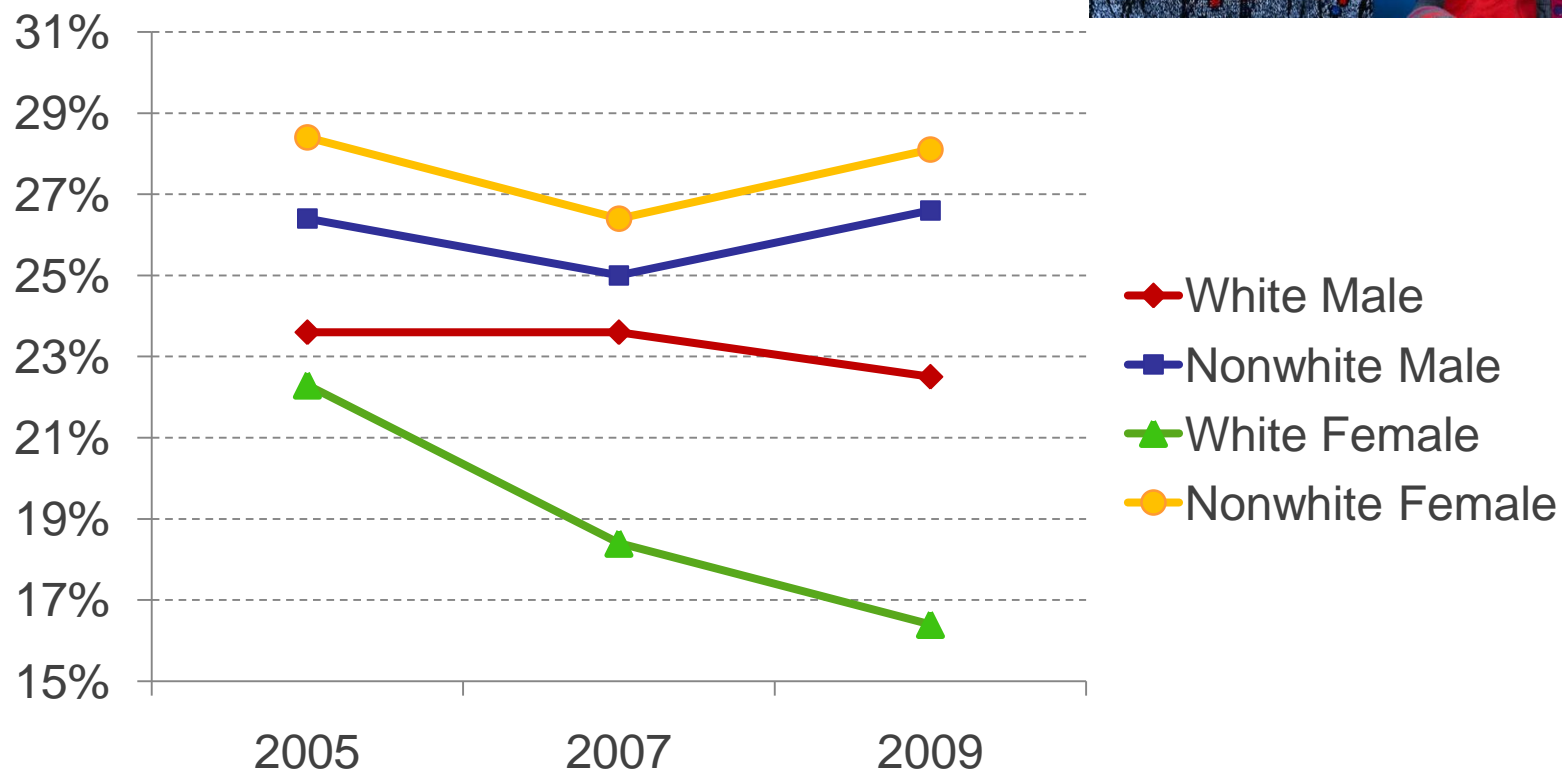


Source: Molaison EF, Kolbo JR, Zhang L, Harbaugh B, Armstrong MG, Rushing K, Blom LC, & Green A. (2010). Prevalence and Trends in Obesity among Mississippi Public School Students, 2005-2009. *Journal of the Mississippi Medical Association* 51(3): 67-72.

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2005 - 2009 CAYPOS Obesity Rates by Race & Gender



Source: Molaison EF, Kolbo JR, Zhang L, Harbaugh B, Armstrong MG, Rushing K, Blom LC, & Green A. (2010). Prevalence and Trends in Obesity among Mississippi Public School Students, 2005-2009. *Journal of the Mississippi Medical Association* 51(3): 67-72.

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Committed to Move

- FITNESSGRAM data collected over five semesters, beginning in Spring 2008
- Data collected and organized by student, class, grade, and school
- Data used to determine percent of students achieving scores within a Healthy Fit Zone
- Data merged with student academic records



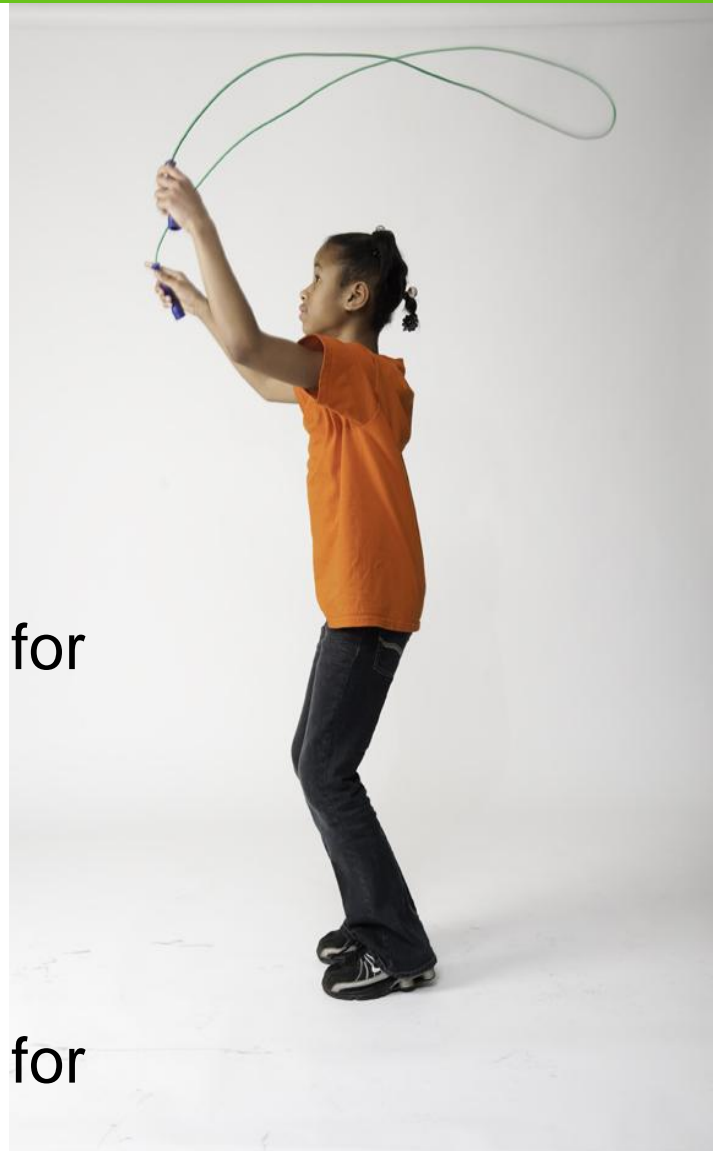
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C2M FINDINGS

- Strong positive association between fitness and academic performance
 - Statistically significant linear trend for both Language Arts and Math
- Strong negative association between fitness and behavioral performance
 - Statistically significant linear trend for absences but not for disciplinary actions



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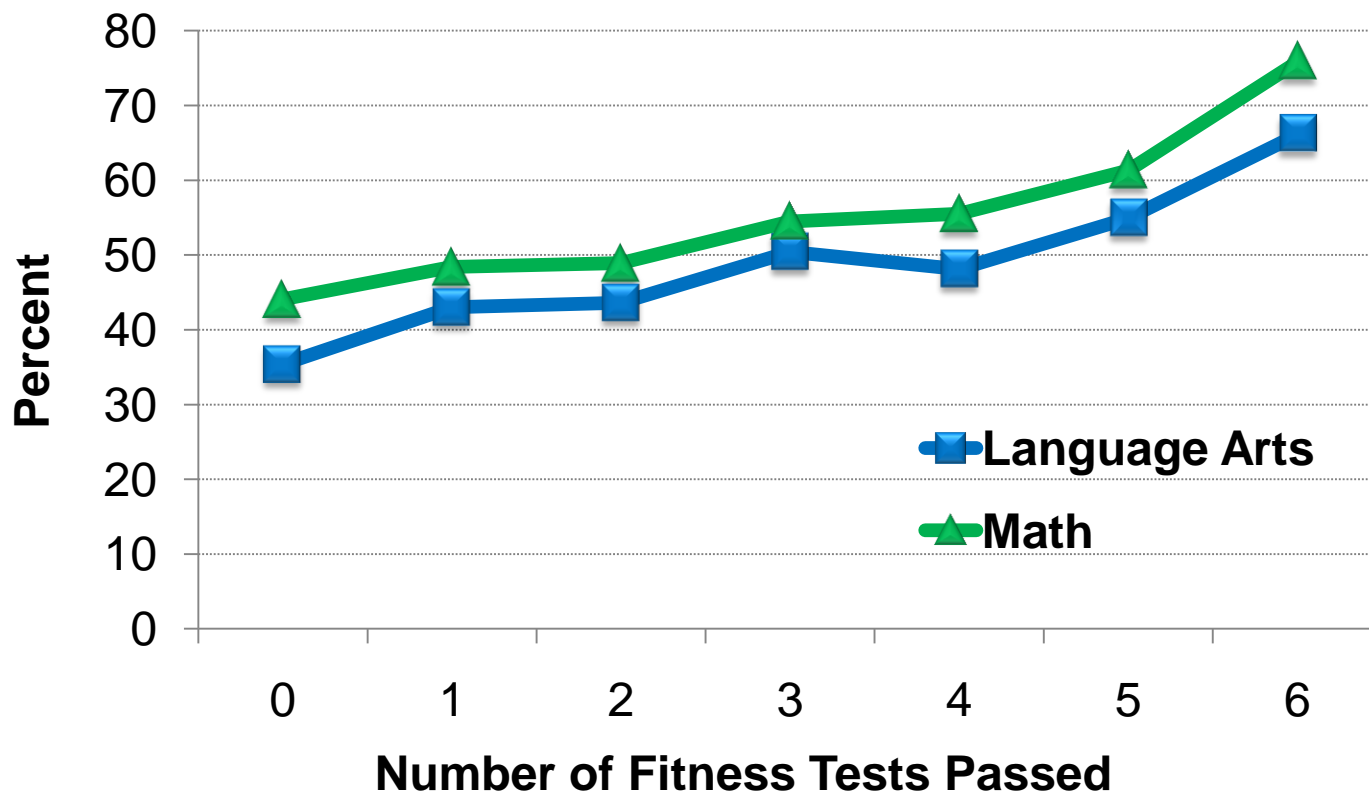




Fitness & Test Scores



Percentage of Students with High Test Scores



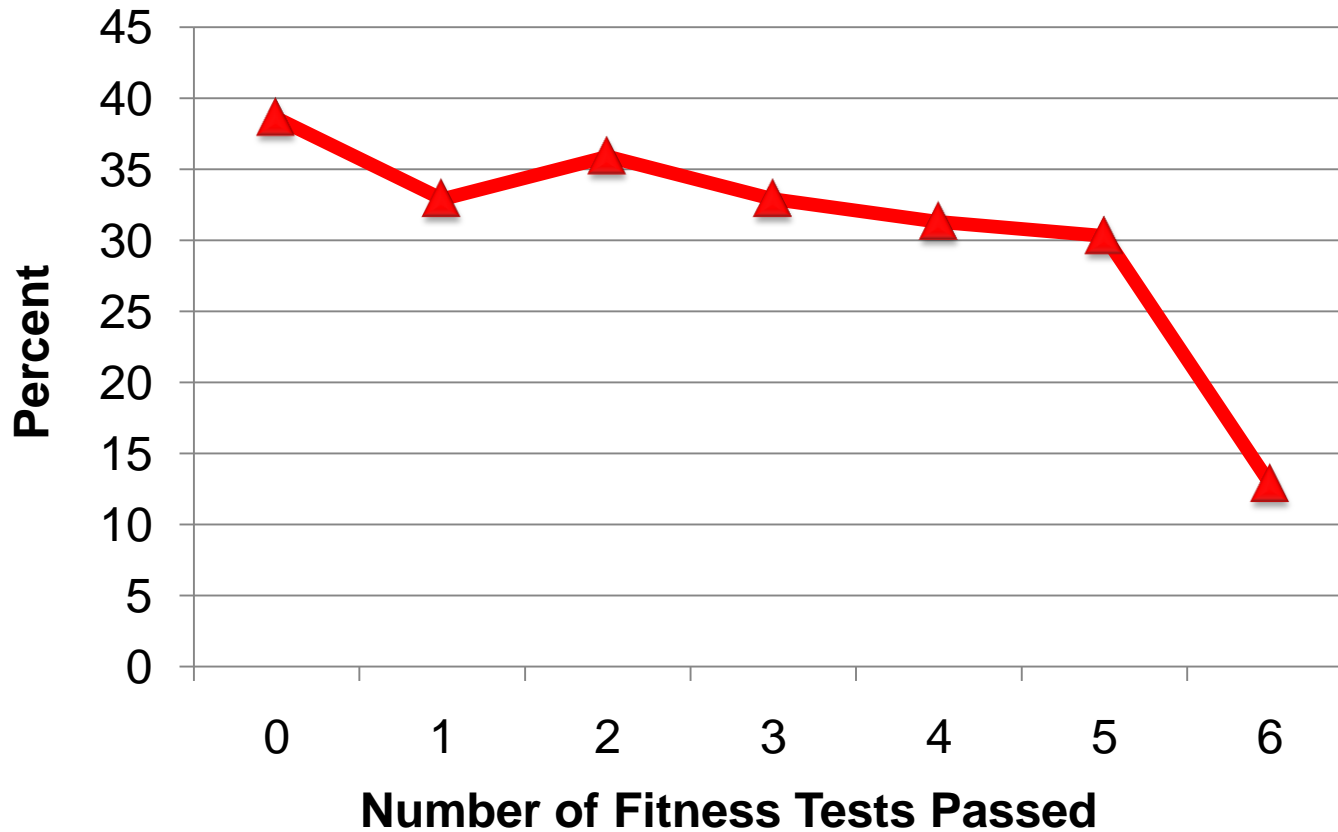
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Fitness & Absences

Percentage of Students with 8 or More Absences



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Recent Policy Changes



- HB 1078 – provides incentives to participate in HealthierUS School Challenge
- HB 1079 – requires comprehensive training on certain school food service practices
- State Board of Education policies:
 - Clarifies the requirements for dark green & orange vegetables
 - Requires 3 year plan to eliminate fried foods
 - Increases whole grain products to at least 1 serving 3 days/week
 - Reduces milk fat content to 1 percent
- Template developed for school health councils to use in presentations to school boards





Moving Forward

- 2010 parent & policymaker surveys completed
- 2010 principal survey this fall
- 2010 on-site nutrition environment assessment completed
- 2009 CAYPOS data being matched with academic records
- Fitness data expanded to Bower Network schools

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Acknowledgement



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Citations

- Kolbo JR, Molaison EF, Rushing K, Zhang L, & Green, A. (2009). *The 2008 Mississippi Local School Wellness Policy Principal Survey*. Center for Mississippi Health Policy, January 2009. Accessed at http://www.mshealthpolicy.com/documents/2008_wellness_surveyFINALREPORT.pdf.
- Carithers T, Lambert L, Parkes E, Dickerson A, & Edwards P. (2009). *Mississippi School Nutrition Environment Evaluation Data System (MS NEEDS) Technical Report Year One Outcomes*. Accessed at http://www.mshealthpolicy.com/documents/MSNEEDSYearOne_Report1-1-2010.pdf.
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- Molaison EF, Kolbo JR, Zhang, L, Armstrong MG, Blom LC, Harbaugh B, Rushing, K, & Green, A. (2010). *Prevalence and trends in obesity among Mississippi public school students, 2005-2009*. *Journal of the Mississippi State Medical Association* 51(3): 67-72.





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